WHAT IS CLAIMED IS:

Sub B1

1. ~~A system for computing equation coefficients to~~ represent an input-output color characteristic of a color display device, said system comprising:

a signal generator for generating an output signal that can be used by a color display device to produce a predetermined pattern on a screen of said color display device;

a general purpose computer providing a plurality of first outputs to said signal generator such that said signal generator incrementally changes said output signal from a first extreme to a second extreme such that a first color can be displayed on said color display device in said predetermined pattern, said single color being displayed incrementally from a first brightness level to a second brightness level;

a photometer device positioned to measure the incremental brightness levels that can be displayed on ~~said color~~ display device, said photometer providing a

brightness data for each incremental brightness level to said general purpose computer;

said general purpose computer correlates said first outputs with said brightness data to further calculate a plurality of coefficients that represent the signal input-to-first color output relationship of said color display device.

2. The system for computing of claim 1, wherein said general purpose computer further can provide said plurality of coefficients to said color display device.

3. The system for computing of claim 1, wherein said coefficients are for a polynomial equation that represents the signal input-to-first color output relationship of said color display device.

4. The system for computing of claim 1, wherein said plurality of coefficients can be communicated to

said color display device for storage in a data storage device associated with said color display device.

5. The system for computing of claim 1, wherein said plurality of coefficients can be utilized in a third order polynomial equation which predicts the brightness of said first color to within 0.3 foot-lamberts for each input signal for said color display device.

6. The system for computing of claim 1, wherein said first color is at least one of red, green, and blue.

7. The system for computing of claim 1 wherein said color display device can be at least one of a VGA monitor, a MultiSync monitor, a flat panel NCD display, a flat panel SPU display, a flat panel LCD display, a reflective LCD display, and a FED display device.

Sub B2

8. ~~A method of calculating a mathematical~~ representation of the signal input-to-color brightness output relationship of a color display monitor, said method comprising the steps of:

providing input signals having predetermined incremental changes between said input signals to a color display device such that said color display device produces a predetermined pattern on the color display device's screen;

measuring a brightness of at least a portion of said predetermined pattern at each incremental change of said input signal and providing said measured brightness as brightness data to a general purpose computer;

correlating said input signals with said brightness data in said general purpose computer;

calculating coefficients of a polynomial representation, in said general purpose computer, of said correlated ~~input~~ signals to said brightness data;

storing said coefficients in a memory device associated with said color display device.

Sub E4

9. The method of claim 8, wherein said input signals represent at least one predetermined color that can be displayed on said color display device.

10. The method of claim 8, wherein prior to the step of providing a step of warming up said color display device is performed.

11. The method of claim 8, wherein said memory device associated with said color display device is a DDC memory.

Sub B3

12. A color display device adapted to provide a plurality of coefficients to a color display device driver circuit, said coefficients being related to a signal-input-to-brightness-output transfer function of

said color display device, said color display device comprising:

input/output circuitry for connecting said color display device to a general purpose computer;

a display screen in communication with said input/output circuitry;

a data storage device, in communication with said input/output circuitry, for storing, at least, a plurality of coefficients for a signal-input-to-brightness-output transfer function, said plurality of coefficients being calculated after incremental signals are provided to said color display monitor, via said input/output circuit, such that a predetermined pattern is displayed on said display screen, a brightness data of said predetermined pattern is measured and correlated with each said incremental signal, a transfer function, having coefficients, is calculated based on said correlation of said incremental signals and said brightness data, said coefficients then being stored in

~~said memory device, said coefficients being available to~~ a color display device driver ~~circuit~~ when said color display device ~~is~~ connected to a general purpose ~~computer.~~

Sub E6

13. The color display device of claim 12, wherein said transfer function is a polynomial equation.

14. The color display device of claim 12, wherein said transfer function is a third order polynomial equation.

15. The color display device of claim 12, wherein said color display device is a screen utilized by at least one of a personal computer, laptop computer, and computer monitor.

Sub B4

16. ~~A computer system~~ comprising:

a general purpose computer, said general purpose computer comprising a color display device driver;

a color display device connected to said general purpose computer, said color display device comprising a data storage device containing data that can be provided to said color display device driver in order to aide the standardization of a color brightness.

17. The computer system of claim 16, wherein said data comprises coefficients to a polynomial transfer function that describes a relationship between an input signal to said color display device and a color brightness on a screen of said color display device.

18. The computer system of claim 16, wherein said data storage device is memory device.

19. The computer system of claim 16, wherein said memory device is a DDC memory associated said color display device.

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